

Atty. Dkt. No. 39078-0005  
Title: INTERFERING RNA  
MOLECULES  
Inventor: Klaus GIESE  
Filed: August 5, 2003

Fig. 1

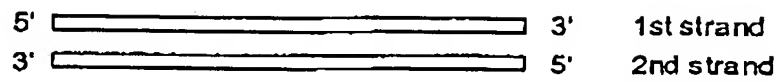


Fig. 2



Fig. 2B

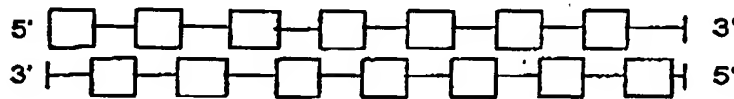


Fig. 2C

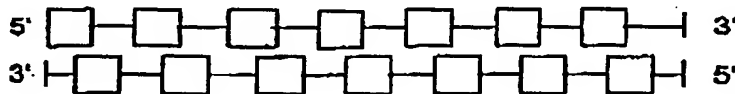
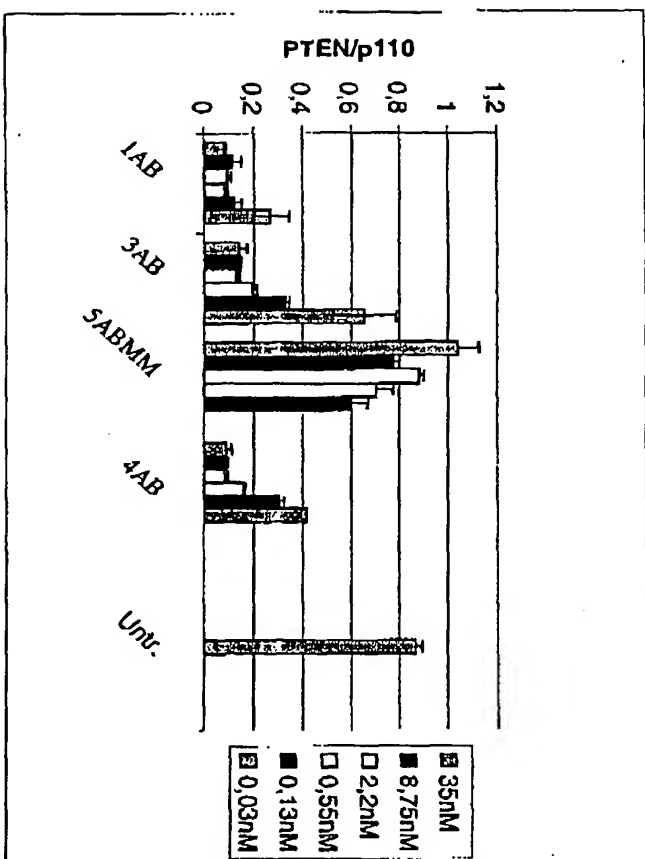


Fig.3



3A

ONLY RNA WITH 2 DEOXY AT EACH END  
1A 5'- cuccuuguuucgcuacg-TT  
1B 3'-TT-gaggaaacaagacgaugc

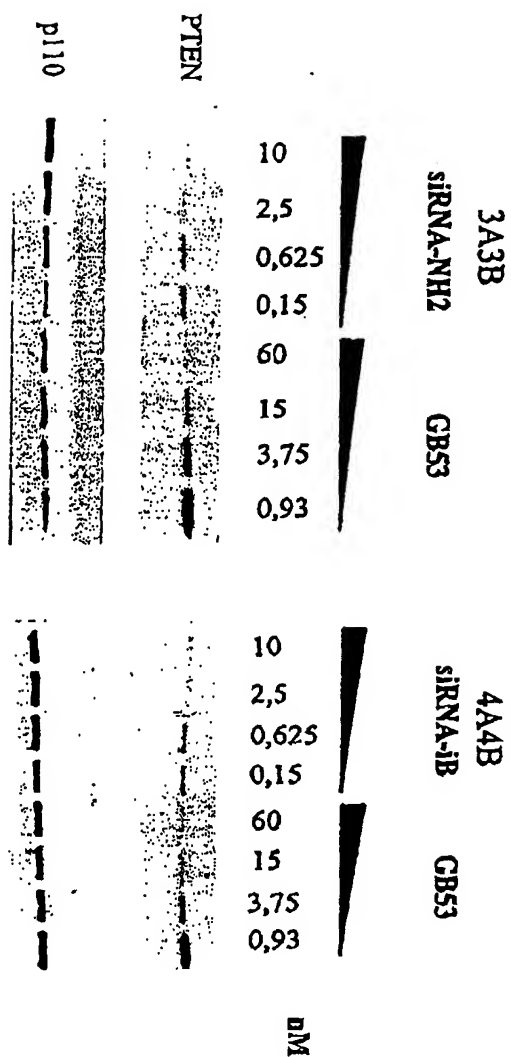
ONLY RNA WITH NH2 GROUPS AT EACH 3' END AND 2 DEOXY  
1A 5'- cuccuuguuucgcuacg-TT-NH2  
1B 3'-NH2-TT-gaggaaacaagacgaugc

ONLY RNA WITH INVERTED ABAS-C AND 2 TT  
4A 16153-1B (1B at the 3' ends)  
4A 5'- cuccuuguuucgcuacg-TT-1B  
4B 3'-1B-TT-gaggaaacaagacgaugc

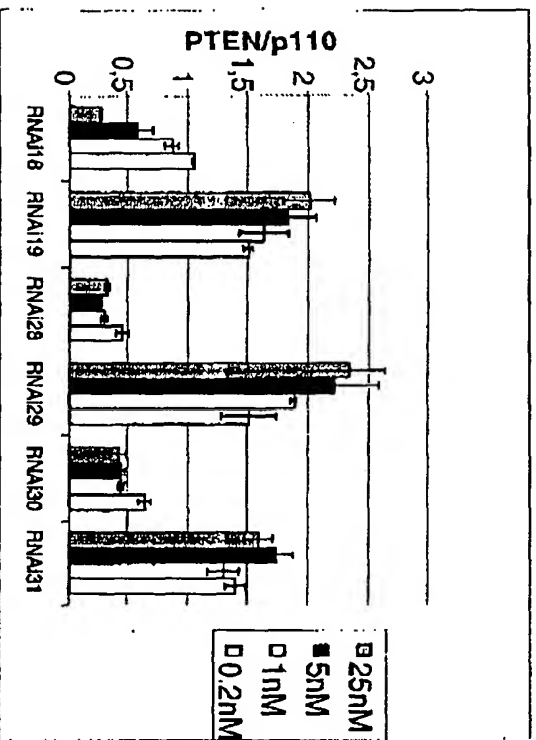
ONLY RNA WITH 2 DEOXY AT EACH END  
5A 5'- cuccuuguuucgcuacg-TT  
5B 3'-TT-gaggaaacaagacgaugc

3B

Fig. 3C



4A

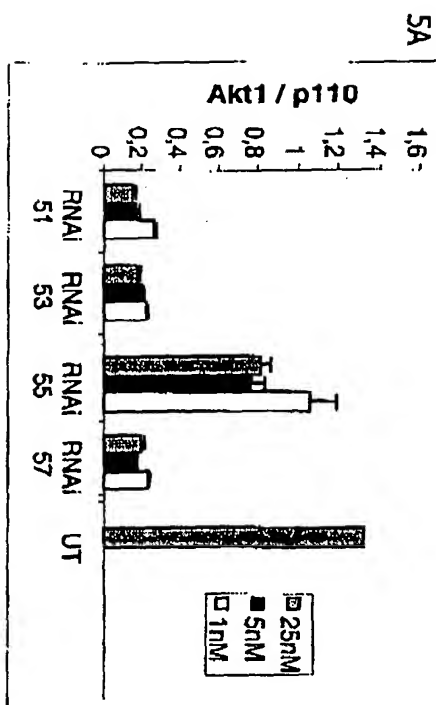


4B

|          |                                |
|----------|--------------------------------|
| 18A      | 5'-cuccuuuuguuucugcuaacg-3'    |
| 18B      | 3'-TT-gaggaacaaagacgaauugc     |
| 19A (NM) | 5'-cuccuuuucuuugucacag-3'      |
| 19B (NM) | 3'-TT-gaguuuaaagaaacacagagugc  |
| 28A      | 5'-cuccuuuuguuucugcuaacg-3'    |
| 28B      | 3'-gaggaacaaagacgaauugc        |
| 29A (NM) | 5'-cuccuuuucuuugucacag-3'      |
| 29B (NM) | 3'-gaguuuaaagaaacacagagugc     |
| 30A      | 5'-TT-cuccuuuuguuucugcuaacg-3' |
| 30B      | 3'-gaggaacaaagacgaauugc-3'     |
| 31A (NM) | 5'-TT-cuccuuuucuuugucacag-3'   |
| 31B (NM) | 3'-gaguuuaaagaaacacagagugc-3'  |

Fig. 4

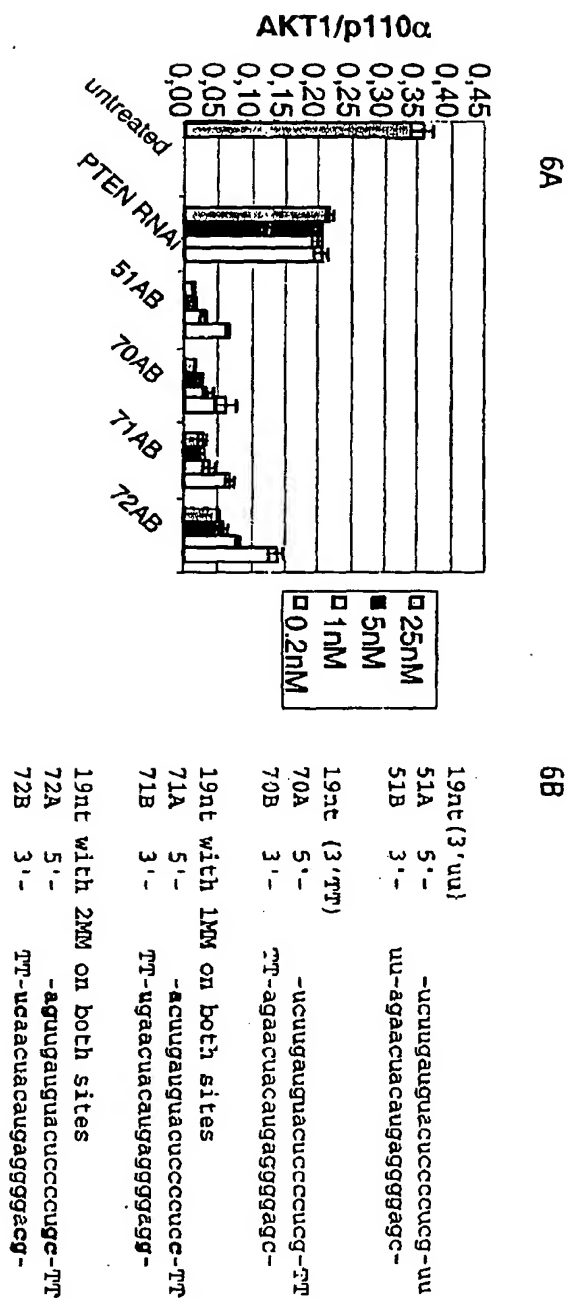
Fig. 5



5B

|     |     |                          |                          |
|-----|-----|--------------------------|--------------------------|
| 51A | 5'- | -ucuuugauguaucucccucg-uu | 19nt 3'uu                |
| 51B | 3'- | uu-agaacuaacauagaggagc-  |                          |
| 53A | 5'- | -ucuuugauguaucucccucg-uu | 19nt 3'seq. specific RNA |
| 53B | 3'- | cc-agaacuaacauagaggagc-  |                          |
| 55A | 5'- | -cuugauguaucucccuc- gu   | 17nt 3'seq. specific RNA |
| 55B | 3'- | ca-gaacuaacauagaggagc-   |                          |
| 57A | 5'- | -ucuuugauguaucucccucg-rr | 19nt 3'seq. specific DNA |
| 57B | 3'- | cc-agaacuaacauagaggagc-  |                          |

Fig. 6



**Ratio Akt1 / p110  $\alpha$**

Fig. 7



96 h

Fig. 7

Fig. 8'

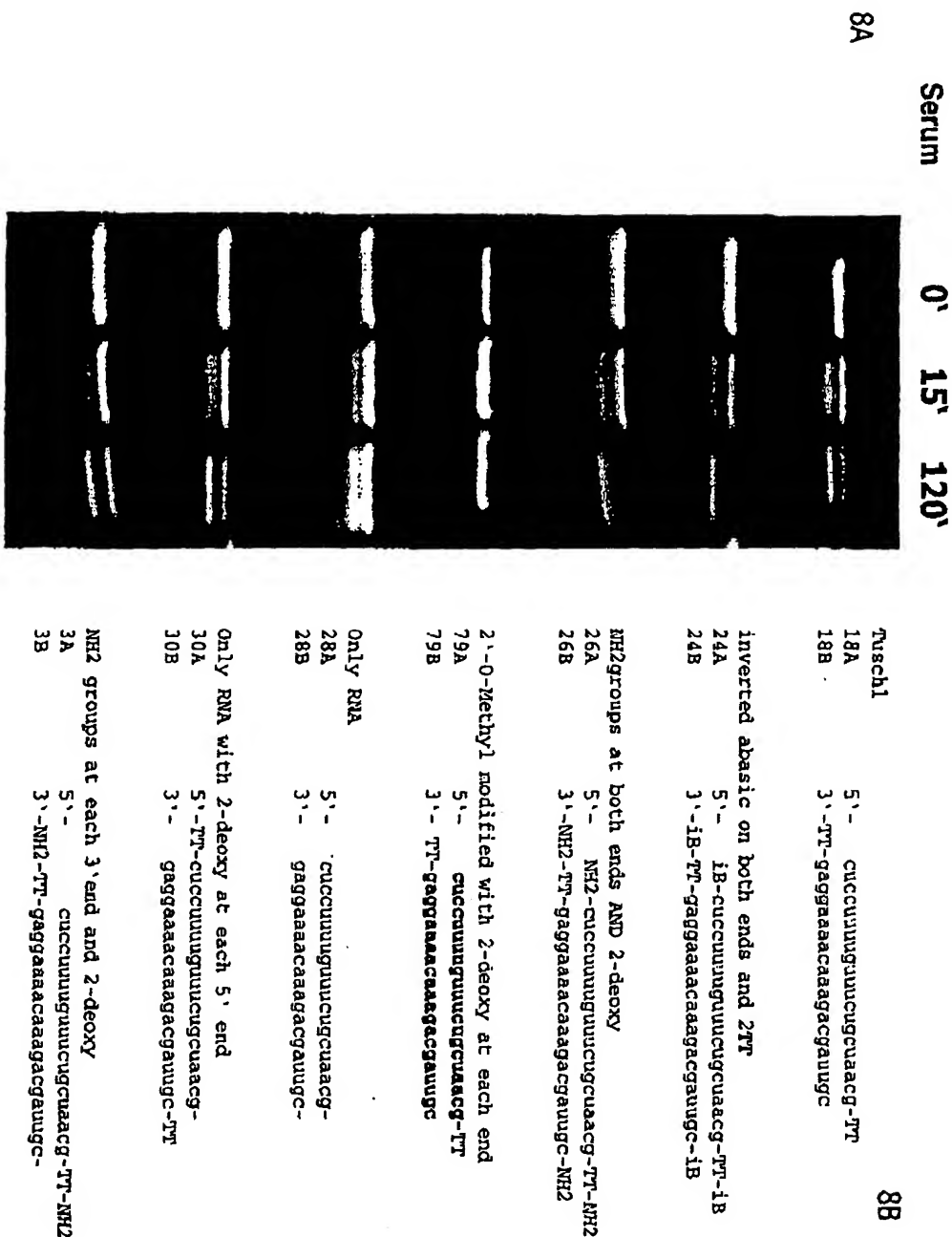
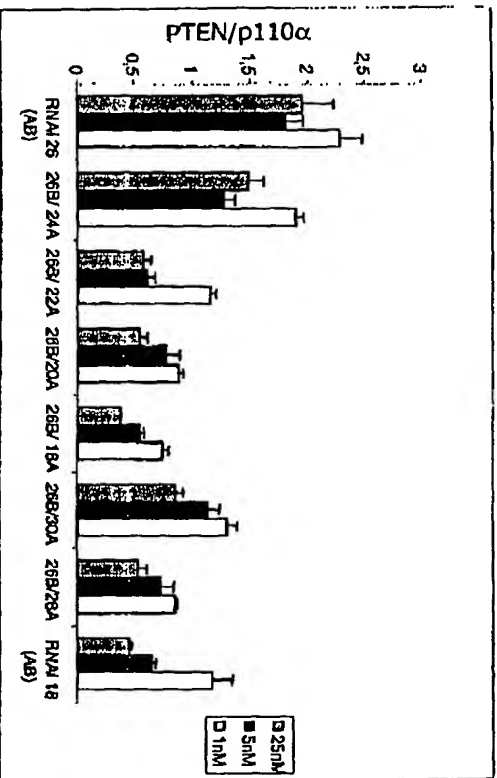


Fig. 9

9A

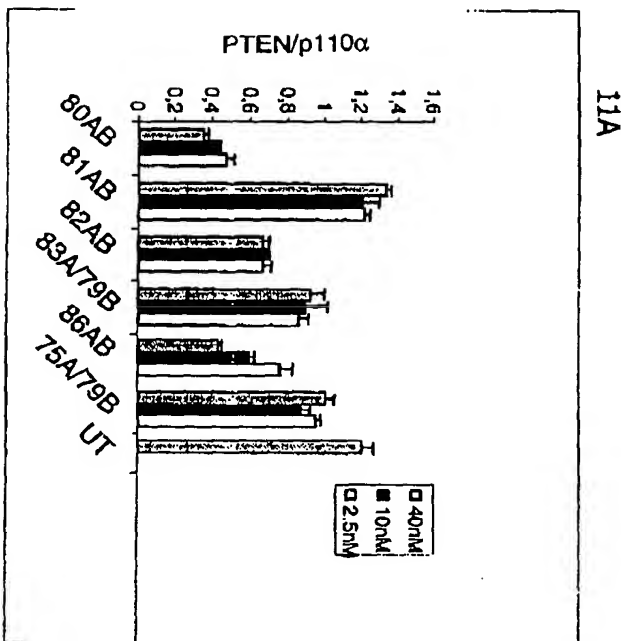


9B

26A 5'-NH<sub>2</sub>-cuccuauuguuucugcuuaacg-tt'-NH<sub>2</sub>  
 26B 3'-NH<sub>2</sub>-tt'-gaggaacaaacagcgauuugc-NH<sub>2</sub>  
 24A 5'-ib-cuccuauuguuucugcuuaacg-tt'-ib  
 26B 3'-NH<sub>2</sub>-tt'-gaggaacaaacagcgauuugc-NH<sub>2</sub>  
 22A 5'-cuccuauuguuucugcuuaacg-tt'-ib  
 26B 3'-NH<sub>2</sub>-tt'-gaggaacaaacagcgauuugc-NH<sub>2</sub>  
 20A 5'-cuccuauuguuucugcuuaacg-tt'-NH<sub>2</sub>  
 26B 3'-NH<sub>2</sub>-tt'-gaggaacaaacagcgauuugc-NH<sub>2</sub>  
 18A 5'-cuccuauuguuucugcuuaacg-tt'  
 26B 3'-NH<sub>2</sub>-tt'-gaggaacaaacagcgauuugc-NH<sub>2</sub>  
 30A 5'-tt'-cuccuauuguuucugcuuaacg-  
 26B 3'-NH<sub>2</sub>-tt'-gaggaacaaacagcgauuugc-NH<sub>2</sub>  
 28A 5'-cuccuauuguuucugcuuaacg-  
 26B 3'-NH<sub>2</sub>-tt'-gaggaacaaacagcgauuugc-NH<sub>2</sub>  
 18A 5'-cuccuauuguuucugcuuaacg-tt'  
 18B 3'-tt'-gaggaacaaacagcgauuugc



**Fig. 11**



11C

**RNA Bold Italics represents 2'-O-methyl**

5'-cuccuuuuguuucugcuacg-80A

[illegible]

5'-*ccccuuyguyucgcuacg-*

3'-  
-gagggvavacacacagggacgaaaggc-

5'-  
82A

31 - **ପ୍ରତ୍ୟକ୍ଷନିରୀକ୍ଷଣପ୍ରଣାଳୀ**

51- суссууныг үсгэснэ

-**ඉහළම අගය සහිත ප්‍රතිපත්ති**

---

51- 886A

868 3' - gaggaacaacaaagacgaaugc-

75A 5'-cuccuuuuguuucgcuacg-

[illegible]

\_\_\_\_\_

100

# INBUILT

# JOINT

1

2h Serum

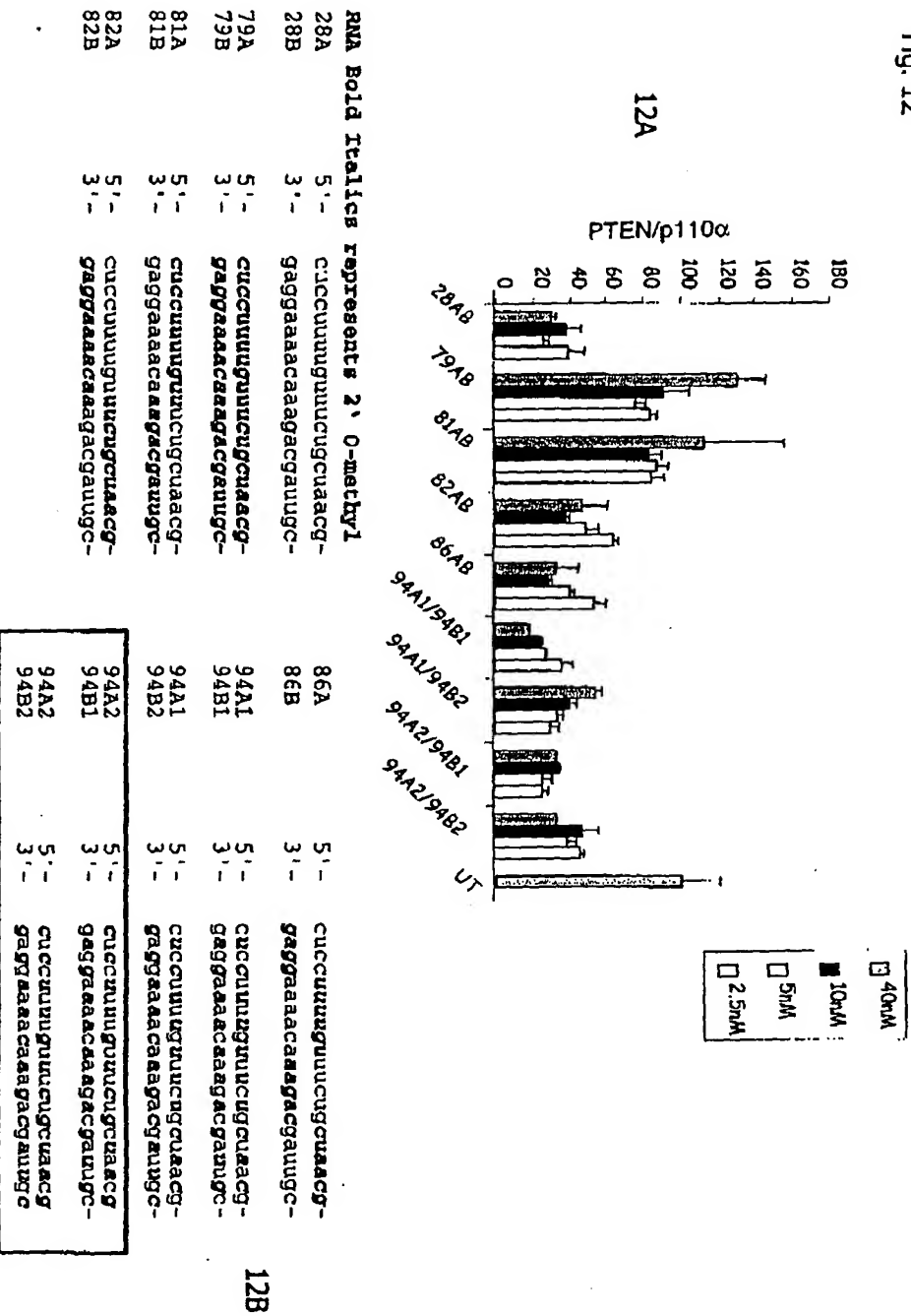
1000

1

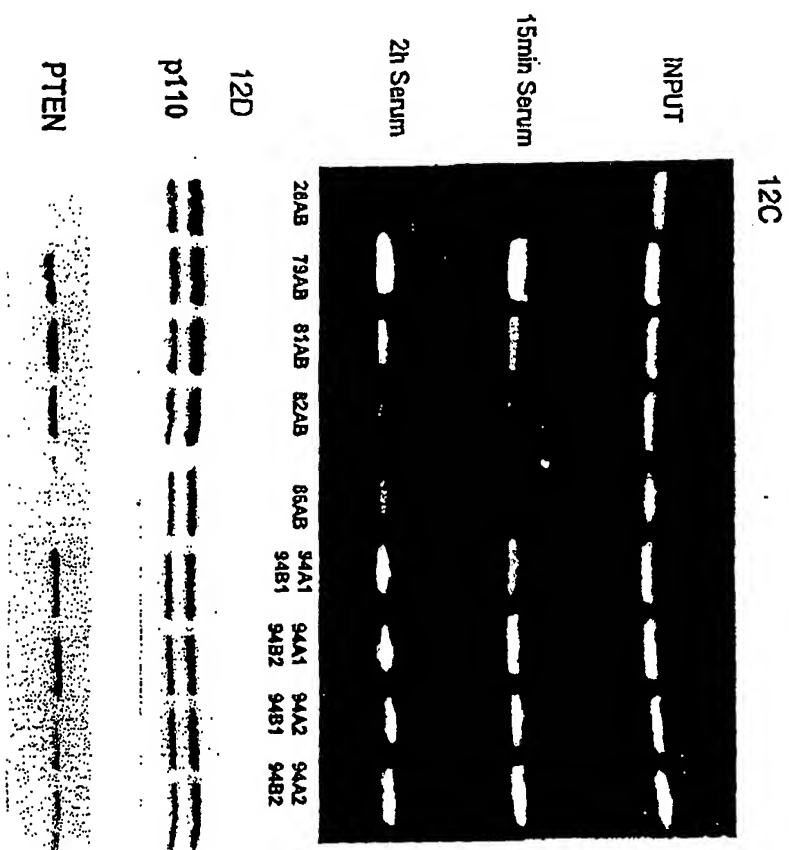
80AB 82AB 86AB 75A

79B

Fig. 12



**Fig. 12**



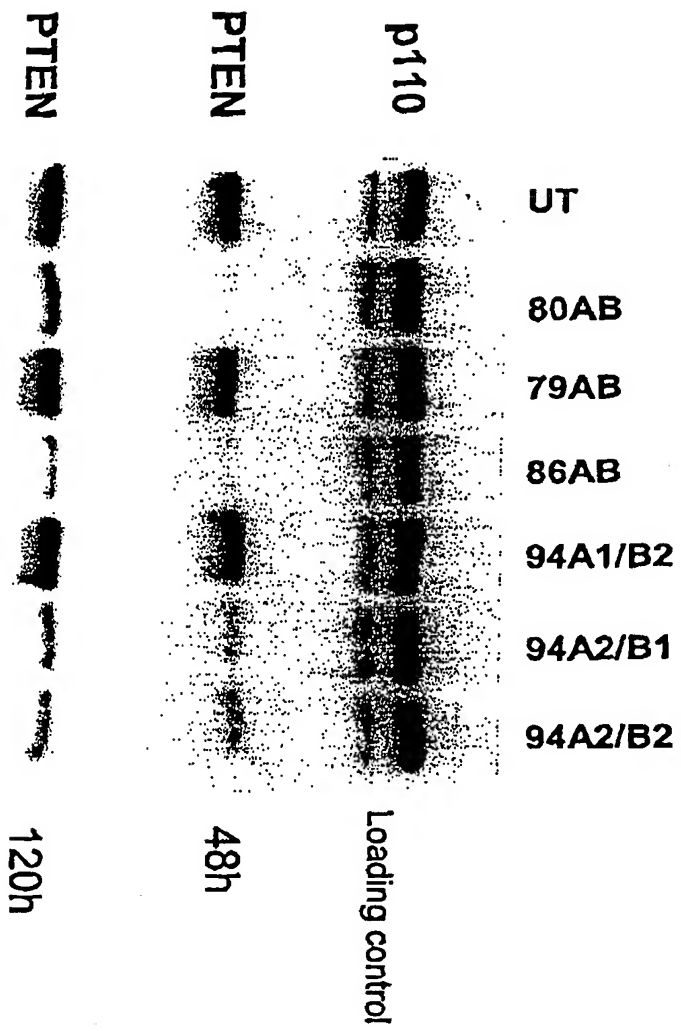
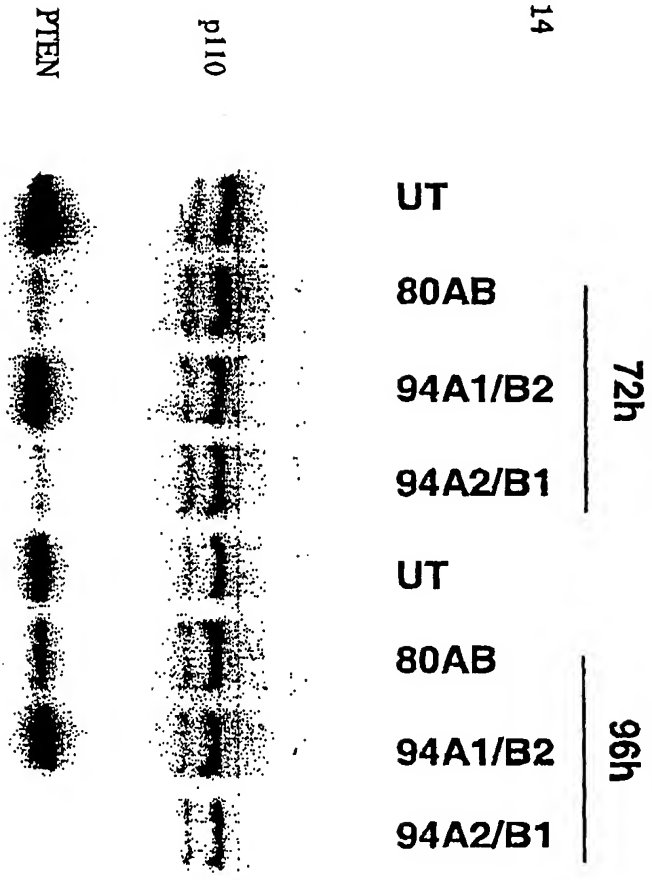




Fig. 14



A

Att. Dkt. No. 39078-0005  
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 Ratio PTEN/p110α

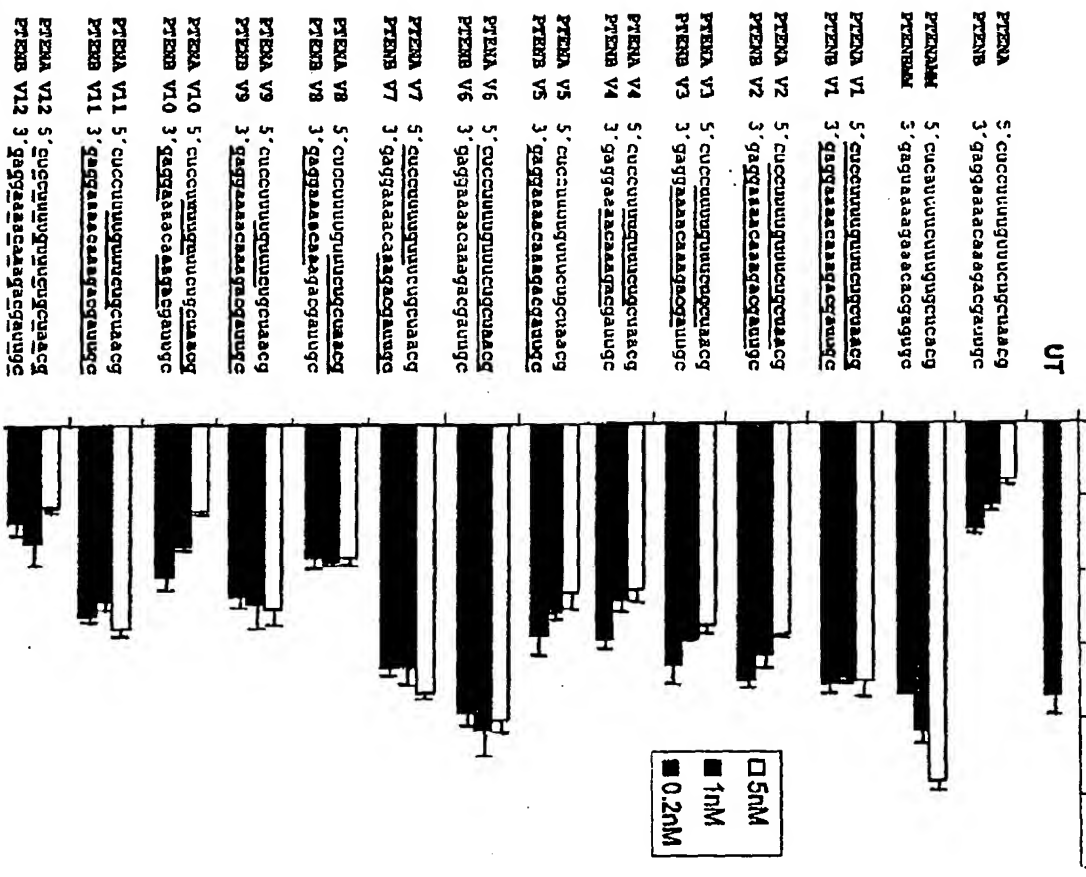


Fig. 15

Inventor: Klaus GIESE  
 Filed: August 5, 2003

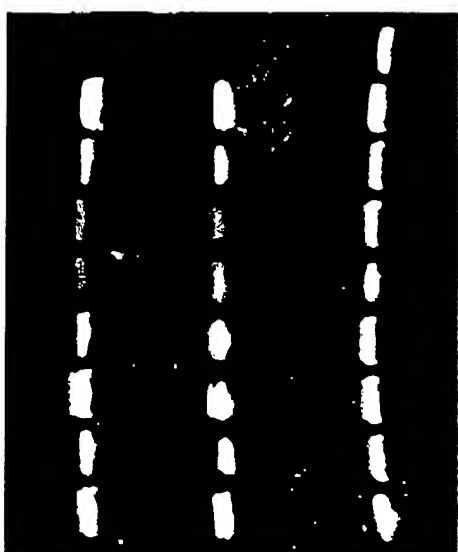
B

PTENA 5' c u c c u u u g u u u c u g c u a a c g  
 PTENB 3' g a g g a a a a c a a a g a c g a u u g c  
 PTENA V1 5' c u c c u u u g u u u c u g c u a a c g  
 PTENB V1 3' g a g g a a a a c a a a g a c g a u u g c  
 PTENA V7 5' c u c c u u u g u u u c u g c u a a c g  
 PTENB V7 3' g a g g a a a a c a a a g a c g a u u g c  
 PTENA V8 5' c u c c u u u g u u u c u g c u a a c g  
 PTENB V8 3' g a g g a a a a c a a a g a c g a u u g c  
 PTENA V10 5' c u c c u u u g u u u c u g c u a a c g  
 PTENB V10 3' g a g g a a a a c a a a g a c g a u u g c  
 PTENA V13 5' c u c c u u u g u u u c u g c u a a c g  
 PTENB V13 3' g a g g a a a a c a a a g a c g a u u g c  
 PTENA V14 5' c u c c u u u g u u u c u g c u a a c g  
 PTENB V14 3' g a g g a a a a c a a a g a c g a u u g c  
 PTENA V15 5' c u c c u u u g u u u c u g c u a a c g  
 PTENB V15 3' g a g g a a a a c a a a g a c g a u u g c  
 PTENA V12 5' c u c c u u u g u u u c u g c u a a c g  
 PTENB V12 3' g a g g a a a a c a a a g a c g a u u g c

INPUT

15min Serum

2h Serum



C

UT AB V1 V7 V8 V10 V13 V14 V15 V12  
 p110α -  
 PTEN -  
 1 2 3 4 5 6 7 8 9 10

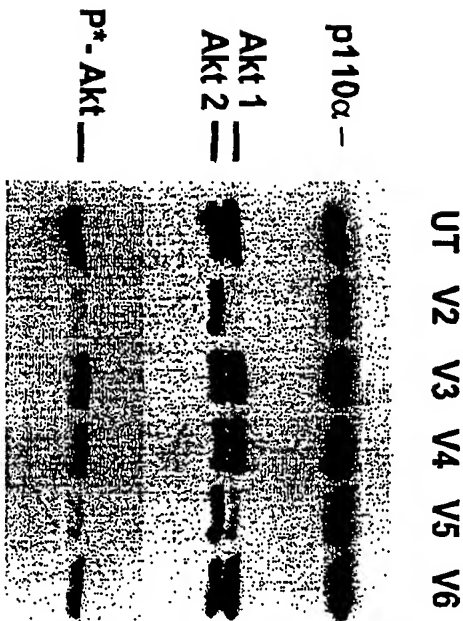
D

UT AB V1 V10 V14 V15 V12  
 p110α -  
 PTEN -  
 1 2 3 4 5 6 7  
 48h  
 120h

Fig. 15

A

|          |                               |
|----------|-------------------------------|
| AKc1A V1 | 5' ucuuugauugracuucccuucg-3'  |
| AKc1B V1 | 3'-tt-aqaaacuaacauagaggggagac |
| AKc1A V2 | 5' ucuuugauugracuucccuucg     |
| AKc1B V2 | 3' agaaacuaacauagaggggagac    |
| AKc1A V3 | 5' ucuuugauugracuucccuucg     |
| AKc1B V3 | 3' agaaacuaacauagaggggagac    |
| AKc1A V4 | 5' ucuuugauugracuucccuucg     |
| AKc1B V4 | 3' agaaacuaacauagaggggagac    |
| AKc1A V5 | 5' ucuuugauugracuucccuucg     |
| AKc1B V5 | 3' agaaacuaacauagaggggagac    |
| AKc1A V6 | 5' ucuuugauugracuucccuucg     |
| AKc1B V6 | 3' agaaacuaacauagaggggagac    |



B

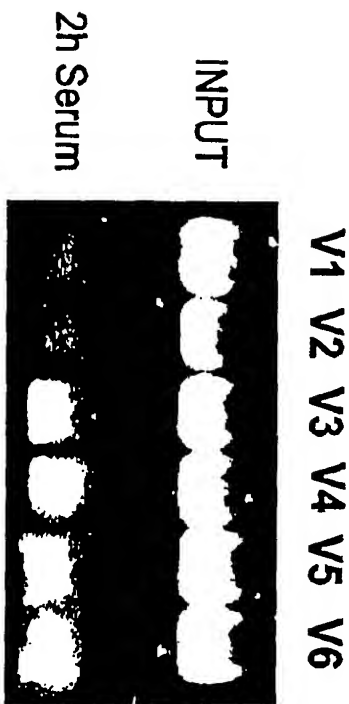


Fig. 16

C

|          |                            |
|----------|----------------------------|
| P110β V2 | 5' aatgccaaguggucacaaatcc  |
| P110β V2 | 3' uuaagggucacacaaaguaaggg |
| P110β V3 | 5' aatgccaaguggucacaaatcc  |
| P110β V3 | 3' uuaagggucacacaaaguaaggg |
| P110β V4 | 5' aatgccaaguggucacaaatcc  |
| P110β V4 | 3' uuaagggucacacaaaguaaggg |
| P110β V5 | 5' aatgccaaguggucacaaatcc  |
| P110β V5 | 3' uuaagggucacacaaaguaaggg |
| P110β V6 | 5' aatgccaaguggucacaaatcc  |
| P110β V6 | 3' uuaagggucacacaaaguaaggg |

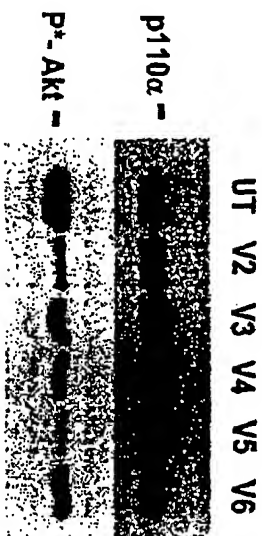


Fig. 16

Fig.17

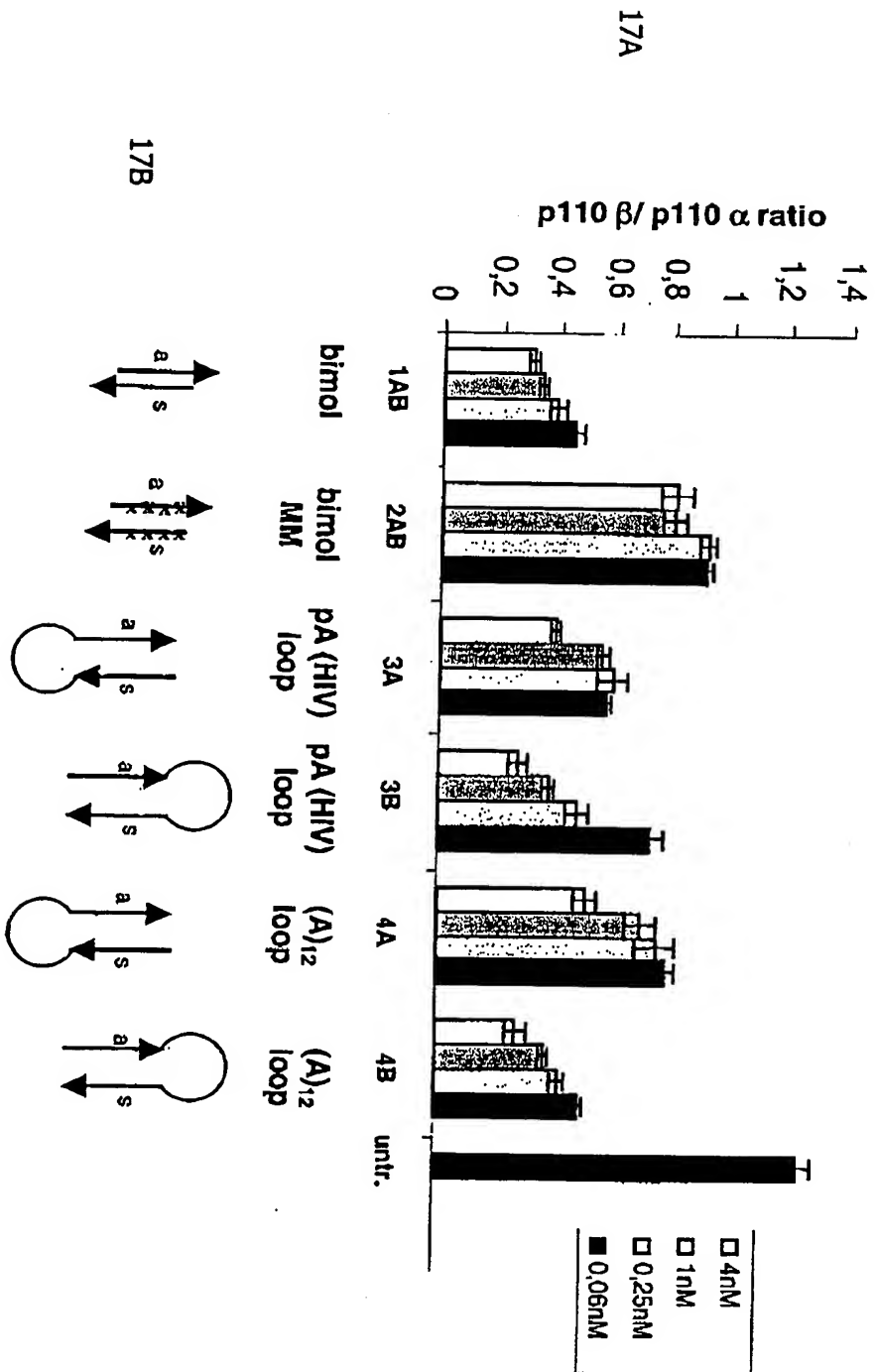
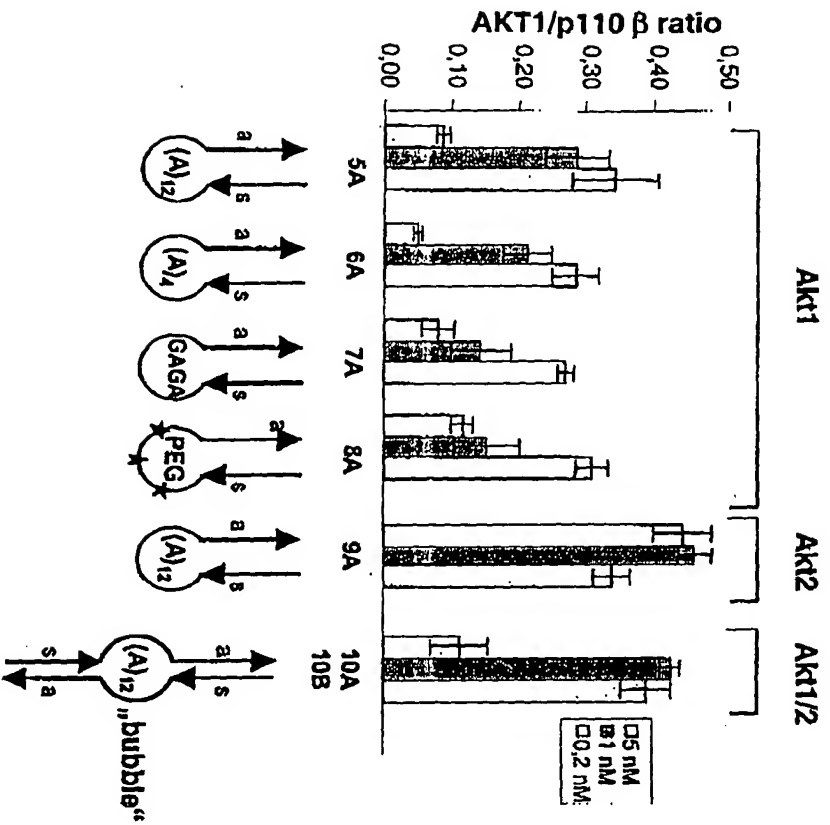
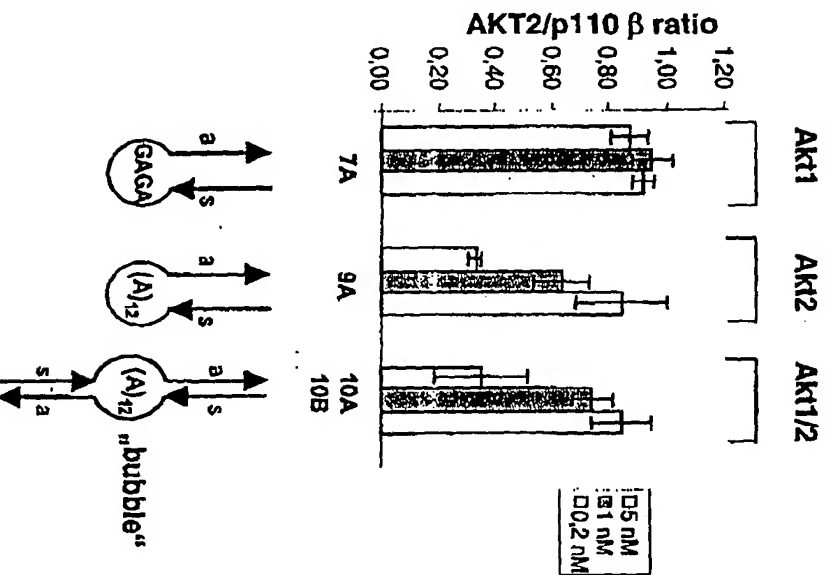


Fig. 18

18A

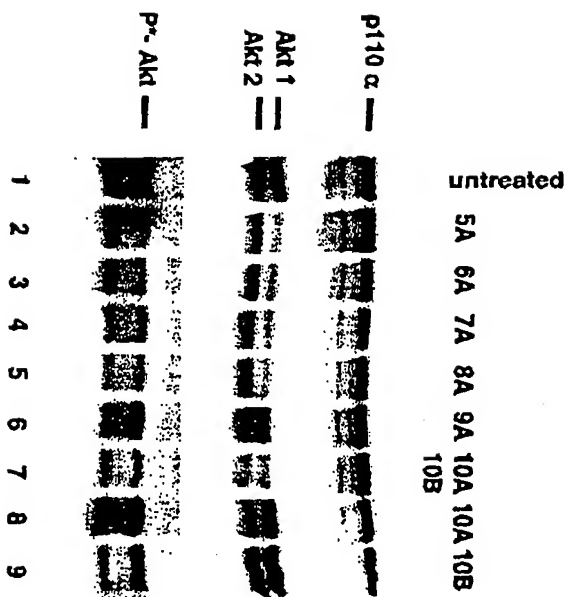


18B



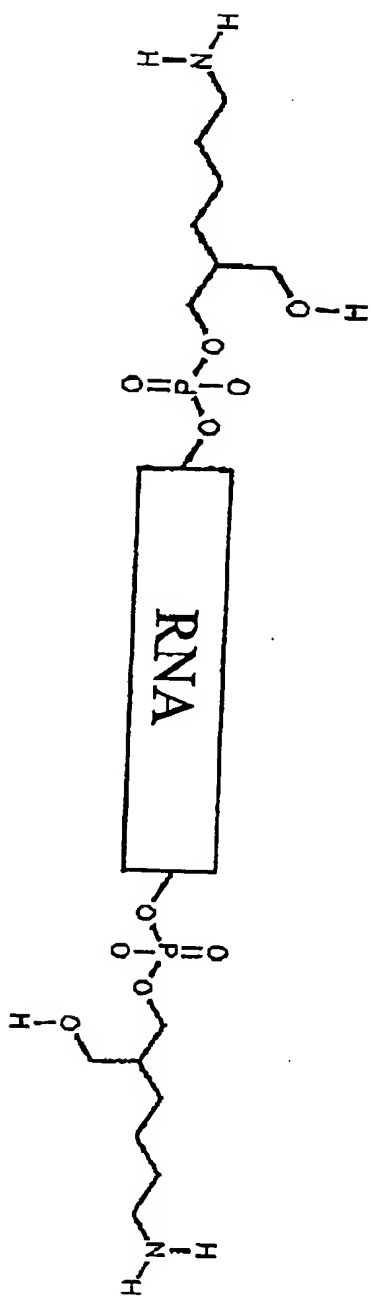
Atty. Dkt. No. 39078-0005  
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MOLECULES  
Inventor: Klaus GIESE  
Filed: August 5, 2003

18C





A



B

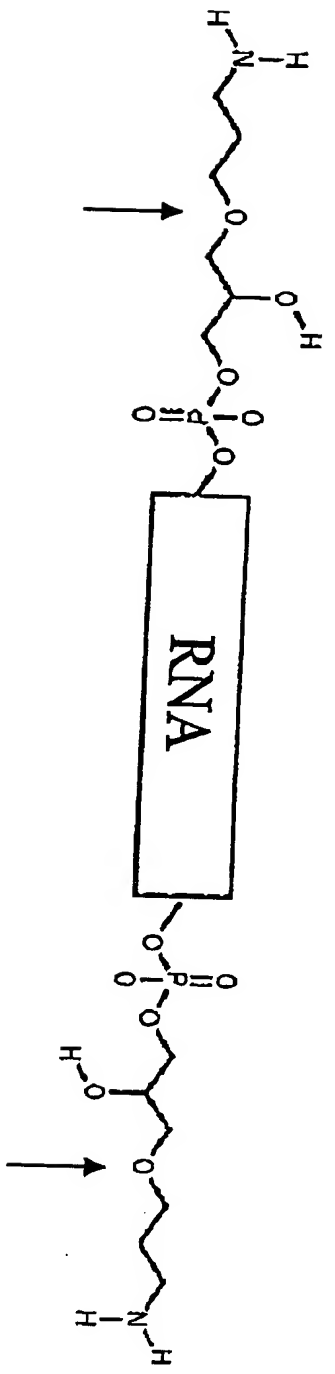


Fig. 19